

term *Sierra* employed by those who discovered the layer altogether more appropriate than such a word as Chromosphere. Secondly, the name Chromosphere implies that the coloured layer forms a spherical envelope, which the irregularity of its sufficiently well-defined outline shows not to be the case. Thirdly, the word is not properly formed, *Chromatosphere* being, I apprehend, the correct form.

The objections to the word *Leucosphere* are even greater.\* Such a word could not possibly be employed in descriptive astronomy without explanatory notes. And further it can scarcely be considered appropriate. For *λευκός* means *white*, and *σφαῖρα* means *sphere*; but the inner corona, when seen under favourable conditions, has not appeared white, and certainly it is not spherical. Furthermore, grave doubts exist whether the implied distinction between the inner and outer parts of the corona is more than apparent. It may be added that in all other combinations of the kind—as *atmosphere*, *photosphere*, and so on—(*hemisphere* belongs to another class) the first word of the compound is a substantive. There seems a valid objection to a change of plan in this respect.

But the great objection against both *Leucosphere* and *Chromosphere* consists in the utter unfitness of either for the purposes of descriptive writing. In this respect they differ wholly from the word *Photosphere*, which refers to a relation not likely to enter into descriptive passages; but objects such as those for which the names Chromosphere and Leucosphere have been suggested require expressive names. I can see no reason why the fine word *Sierra* should not be restored to its place in our books of astronomy; nor why, if it shall appear that a real distinction exists between the brighter and fainter parts of the corona, the former should not be called (as already by Schellen and Secchi) the *corona* and the latter the *glory*. Or else Professor Airy's mode of describing them might well be adopted, and one called the *ring-formed corona*, the other the *radiated corona*.

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#### *A Solar Fog-bow.* By R. C. Carrington.

On the morning of November 27, at five minutes to ten, I saw a curious bow formed in a mist, which was just rising; the Sun was shining brightly, and on the principle of our motto, "*Quicquid nitet notandum*," I took immediate note of it. It was the smallest bow I have seen, not more than twenty-five paces from where I stood, and it measured thirty-five paces from bow to bow. I stepped a yard at a pace, very nearly. The colour was white, like a lunar bow. But what was more remarkable was the appearance of a

\* It was, of course, only in jest that at the last Meeting I compared the sound of the word to that of *lycosphere* (a wolf-sphere).

centre, in which I could see the reflection of my head, which moved as I moved. I remember having seen a centre before in a rainbow, which I witnessed near Cader Idris, in Wales, in July, 1847, in a splendid bow of two arches, but which I never mentioned before, having never heard of the like.

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*Note on the Change in the Colour of the Equatorial Belt of Jupiter.* By John Browning, Esq.

Since the appearance of my last paper in the *Monthly Notices*, Professor Herschel has kindly written me a letter on the subject of the change in colour of *Jupiter*. Some brief extracts from this letter will, I think, be of interest. Professor Herschel says,—

“I see in a recent number of the *Monthly Notices* that you are raising very interesting questions about the appearance of *Jupiter's* belts, which may lead to very important results if it is found that the coloured and disturbed appearances of the belts are subject to periodical maxima and minima at about the same time as those of the spots on the Sun.”

In a number of the *Student*, published just a year since, I wrote an article on the physical condition of *Jupiter*, from which I now give an extract:—

“Another suggestion may be made here,—Sunspots are known to be periodical, their maxima and minima being about eleven years apart. As Mr. Huggins some years ago (date unknown) observed the equatorial belt of *Jupiter* to be of the same ochreish yellow as it is now, there is good reason to suspect periodicity in this change. A period of maxima of sunspots is now approaching. Have these two phenomena any relationship to each other?”

The information I have so much desired to obtain, as to when a change in colour had previously been observed, and the exact appearance of the planet at the time, Professor Herschel has kindly furnished me with in his letter. I, therefore, again give Professor Herschel's words:—

“On a fine night in January, 1860, I turned Mr. Prichard's 6 $\frac{3}{4}$ -inch Equatorial, by Cooke, for about half an hour on *Jupiter*. The planet was so well defined, and the details of the markings on the equatorial belt were so peculiar, that I made a sketch of them, noting at the same time the remarkable brown colour of the equatorial belt. One of the edges of the belt (I think the upper side in the instrument) was beaded or divided into egg-shaped masses, which must have been of brighter or lighter colour than the background of the belt, to have given them so much prominence.”

On January 7, at 9 P.M., three days before I received Professor Herschel's letter, I made a careful coloured drawing of the